

**Abstract of the Disclosure**

A method for structuring SONET rings in a network is disclosed, along with a method for redirecting traffic among SONET rings when a fault causing traffic outage on a single SONET ring is detected. First, SONET rings are structured into "families" sharing common offices, with each family containing an additional "protection ring". When a service-affecting alarm is detected in a SONET ring, it is determined whether there are any service alarms on a protection ring in the SONET ring family. It is also determined whether or not the protection ring is already in use. If the protection ring is not in use and no alarms are detected in the protection ring, the protection ring is marked as being in use. Traffic from the ring in which the service alarm is detected is then re-routed onto the protection ring. A method is also given for directing traffic back to the original SONET ring after the failure is repaired.